CLAIMS:

Pirescale resistant,/work hardenable jewellery silver

alloy compositions comprising:-

0.5 - 6% by weight/copper;

0.02 - 7% by weight of a firescale resisting additive selected from one of a mixture of zinc and silicon, and 0.01 - 2.5% by Weight germanium.

- 2. Firescale resistant, work hardenable alloy compositions in accordance with Claim 1, including silver in a content of at least 92.5% by weight.
- 3. Firescale resistant, work hardenable. alloy compositions in accordance with Claim 1, including a copper content in the range of from 2.0 to 3.0% by weight.
- 4. Firescale resistant, work hardenable alloy compositions in accordance with Claim 1, including a zinc content between 2/0 and 4.0% by weight.
- 5. Firescale #esistant, work hardenable jewellery silver alloy compositions in accordance with Claim 1, including a silicon content in the range of 0.15 to 0.2% by weight.
- 6. Firescale resistant, work hardenable jewellery silver alloy compositions in accordance with Claim 1, including a germanium content/in the range of 0.04 to 2.0% by weight.
- 7. Firescale resistant, work hardenable jewellery silver alloy compositions comprising 0.0 to 3.5% by weight of a grain refinement and/or surface tension reducing additive selected from one or a mixture of indium and boron alloyed to a composition in accordance with one of claims 1 to 6.
- 8. Firescale/resistant, work hardenable jewellery silver alloy compositions in accordance with Claim 7, wherein said

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grain refinement and/or surface tension reducing additive comprises from 0 to 2% by weight boron and 0 to 1.5% by weight indium.

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9. Firescale resistant, work hardenable jewellery silver alloy compositions comprising tin in an amount of up to 6% by weight alloyed to a composition in accordance with any one of claims 1 to 5.

Sws Du 10. Firescale resistant, work hardenable jewellery silver alloy compositions in accordance with Claim 9, wherein the tin is utilized in an amount of from 0.25 to 6% by weight.

- 11. Silver alloy compositions comprising:-
 - 81 99.409% by weight silver;
 - 0.5 6% by weight ϕ opper;
 - 0.05 5% by weight zinc;
 - 0.02 2% by weight silicon;
 - 0.001 2% by weight boron;
 - 0.01 1.5% by weight indium, and
 - 0.01 2.5% by weight germanium.
- 12. Silver allow compositions comprising:-
 - 75 99.159% by weight silver;
 - 0.5 6% by weight copper;
 - 0.05 5% by weight zinc;
 - 0.02 2% by weight silicon;
 - 0.001 2% by weight boron;
 - 0.01 1.5% by weight indium;
 - 0.01 2.5% by weight germanium, and
 - 0.25 6.0% by weight tin.
- 13. A method of producing firescale resistant, work hardenable jewellery silver alloy compositions according to claim 1 and one of Claims 1 to 10 and including the alloying of silver metal with a master alloy comprising, by weight:





52.5 - 99.85% by weight copper;

0.1 - 35% by weight of zinc or silicon or mixtures thereof, and

0.05 - 12.5% by weight germanium.

14. A method of producing firescale resistant, work hardenable jewellery silver alloy compositions according to Claim 7 and including the alloying of silver metal with a master alloy comprising, by weight:

15.0 - 99.545% by weight copper;

0.25 - 25% by weight zinc;

0.1 - 10% by weight silicon;

0.005 - 10% by weight boron;

0.05 - 15% by weight indium, and

0.05 - 25% by weight germanium.

15. A method of producing firescale resistant, work hardenable jewellerysilver alloy compositions according to Claim 9 and including the alloying of silver metal with a master alloy comprising, by weight:

2.5 - 97.455% by weight copper;

0.25 - 25% by weight zinc;

0.1 - 10% by weight silicon;

0.005 - 10% by weight boron;

0.05 - 15% by weight indium;

0.05 - 25% by weight germanium, and

2.0 - 12.5% by weight tin.

16. A method of producing firescale resistant, work hardenable jewellery silver alloy compositions according to Claim 9 and including the alloying of silver metal with a master alloy comprising, by weight:

2.5 - 97.455% by weight copper;

0.25 - 19.85% by weight zinc;

0.1 - 7.94% by weight silicon;

0.005 - 7.94% by weight boron;



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0.05 - 11.92% by weight indium;

0.05 - 19.85% weight germanium, and

2.0 - 30% by weight tin.

17. A silver composition comprising, by weight percent:

Silver 92.5

Copper 2.35

Zinc 2.82

Silicon 0.19

Boron 0.01

Indium 0.23

Germanium 1.9

18. A silver composition comprising, by weight percent:

Silver 92.5

Copper 3.25

Zinc 3.75

Silicon 0.2

Boron 0.01

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Indium 0.25

Germanium 0.04

19. A silver composition comprising, by weight percent:

Silver 92.5

Copper 3.0

Zinc 3.14

Silicon 0.15

Boron 0.01

Indium 0.2

Germanium 1.0

20. A silver composition comprising, by weight percent:

Zinc 2.25

Indium 0.075

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Germanium/0.125

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